

# CURRENT THINK ALOUD PRACTICES

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# What is Think Aloud?

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**Saying thoughts aloud  
while performing a  
specific task**

# Psychology and Verbal Report

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- Are verbal reports valid?
- Verbal Reports as Data, 1980 –  
K. Anders Ericsson and Herbert A.  
Simon

# Think Aloud Protocol

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- Recall what Think Aloud is – Saying thoughts aloud while performing a specific task
- Most important – focusing a specific task
- Practice exercises – mental multiplication

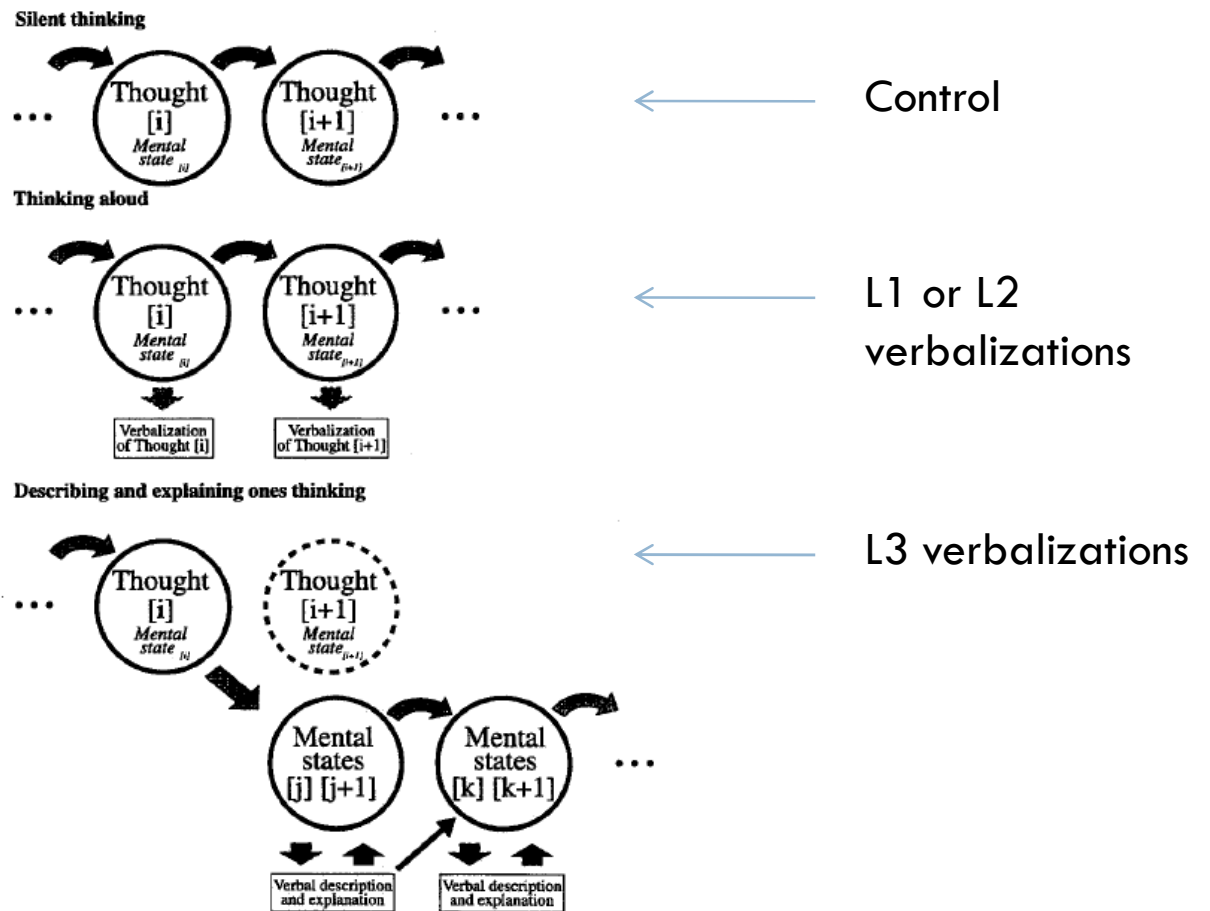
# Types of Verbalizations

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- Level 1 (L1): 'Direct articulation of information stored in a language (verbal) code'
- Level 2 (L2): 'Articulation of verbal recoding of non-propositional information without additional processing'
- Level 3 (L3): 'Articulation after scanning, filtering, inference or generative processes have modified the information available'

# Thought Processes

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From: Ericsson, K. A., & Simon, H. A. (1998). How to Study Thinking in Everyday Life: Contrasting Think-Aloud Protocols With Descriptions and Explanations of Thinking. *Mind, Culture and Activity* , 5 (3), 180.

# L3 Verbalization Examples

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- People are instructed to talk about a specific type of information
  - ▣ Verbal descriptions of motor activities
- People are asked to talk about things they would usually not verbalize or attend to
  - ▣ Reasons for behaviour – may not be available
  - ▣ Hypothetical questions

# Explanations of Behaviour

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## Telling More Than We Can Know – Nisbett & Wilson 1977

- People may not be able to explain ‘why’
- Answers are based on a priori causal theories
- Correct answers are due to correct employment of a priori causal theories



# Usability

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- Do practitioners know the implications of using Think Aloud during a usability test?
- Is there a standard Think Aloud method for usability?
- Why is Think Aloud used in usability studies?

# Clayton Lewis, IBM

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- Using Think Aloud to guide modifications in interface design
- Suggest categories for people to focus on
- Use user comments to infer why a problem occurs

# Standard method?

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Is there a standard Think Aloud method that you use?

# Usability without Think Aloud

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How would the usability world be different if Think Aloud was not used?

- Less information to convince people to make design changes
- Difficult to provide recommendations
- More surprises

# What information do you seek?

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What information are you looking for when you ask people to Think Aloud?

- Thinking / Thought Processes
- Descriptions of Behaviour
- Feelings
- Reasons or Explanations
- Expectations

# Prompting

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When and why do you prompt participants?

- To focus on something they missed
- I have questions planned for specific parts of the interface

# User gets stuck, what do you do?

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What do you do when a user gets stuck?

What if its a building task?

# Useful information

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How do you know if Think Aloud is producing useful information?

- Insights into making product better
- Proves an assumption
- Related to the goal of the study



# Think Aloud in study reports

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How does Think Aloud tie in with study reports?

- 90% of people interviewed frequently use quotes in reports
- Quotes are used as a tool to convince people
  - ▣ More effective than what moderator says
  - ▣ Push stakeholders to make a change
  - ▣ Clients need to convince people for money to implement something

# Guidelines

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- ❑ Don't betray your views of the participant's level of skill
- ❑ Don't expect the user to tell you how to fix problems
- ❑ Don't get impatient!
- ❑ Probe in a neutral way
- ❑ Don't flirt

# Questions?